

## Answer Key

### #3 - 5

9)  $x = 37$  because vertical angles are equal in measure

10)  $x = 21$  because linear pairs form supplementary angles (sum to 180 degrees)

13)  $x = 147$  because angles around a point sum to 360 degrees

14)  $x = 9$  because complementary angles sum to 90 degrees

### #7

21) other endpoint: (-17, -29)

22) other endpoint: (8, -3)

23) other endpoint: (-25, -6)

24) other endpoint: (-1, 26)

25) other endpoint: (29, -13)

26) other endpoint: (14, 12)

\*\* 27) (4, 5)

\*\* 28) (-1, -4)

\*\* *possible extra credit problems*

### #8 (page 1)

7) Steps shown:

$$8) d = \sqrt{244} \text{ OR } d = 15.62$$

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$d = \sqrt{(2 - 3)^2 + (9 - 7)^2}$$

$$d = \sqrt{(-1)^2 + (2)^2}$$

$$d = \sqrt{1 + 4}$$

$$d = \sqrt{5} \text{ OR } d = 2.24$$

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$$9) d = \sqrt{461} \text{ OR } d = 21.47$$

$$10) d = 9$$

$$11) d = \sqrt{645.2} \text{ OR } d = 25.4$$

$$12) d = 105$$

## Answer Key

### #8 (page 2)

9) (0.5, 1.5)

10) (-3.5, 0.5)

11) (1.5, 0.5)

12) (-3, 3)

13) (0.5, -0.5)

14) (2, -2)

15) (-2, -0.5)

16) (-4.01, -3.05)

17) (-1.85, -0.15)

18) (-0.15, -0.95)

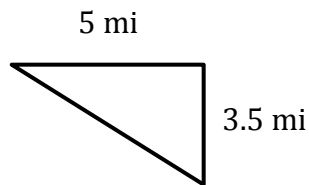
19) (5.55, 4.655)

20) (1.29, -1.35)

### #9

1) The car is 6.1 miles from where it started.

- Note: For this problem, you did not need to add the distances together.
- You can use Pythagorean Theorem of Distance Formula.
- 6.1 miles is the hypotenuse of the right triangle formed by the total distance traveled north (3.5 miles) and the total distance traveled west (5 miles)



2) The student walked 1.86 miles from his/her school.

### #11, 12

17)  $166.5 \text{ cm}^2$

18)  $(1500 + 112.5\pi) \text{ cm}^2$  OR  $1853.24 \text{ cm}^2$   
(this uses 3.14 for  $\pi$ )

19)  $504 \text{ cm}^2$

20)  $170 \text{ mm}^2$

21)  $60 \text{ cm}^2$

22)  $24 \text{ cm}^2$